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UMEA: translating interaction histories into project contexts

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↑ ABSTRACT

Virtual environments based on the desktop metaphor provide limited support for creating and managing project-specific work contexts. The paper discusses existing approaches to supporting higher-level user activities and presents a system named UMEA (User-Monitoring Environment for Activities). The design of the system is informed by activity theory. The system: (a) organizes resources into project-related pools consisting of documents, folders, URLs, and contacts, (b) monitors user activities, (c) automatically adds new resources to pools associated with active projects, and (d) provides personal information management tools linked to individual projects. An empirical evaluation of the system is reported.

↑ REFERENCES

Note: OCR errors may be found in this Reference List extracted from the full text article. ACM has opted to expose the complete List rather than only correct and linked references.

1   Deborah Barreau , Bonnie A. Nardi, Finding and reminding: file organization from the desktop, ACM SIGCHI Bulletin, v.27 n.3, p.39-43, July 1995

2   Belotti, V., Duchenaeut, N., Howard, M., Smith, J. Taskmaster: Recasting email as task management. Position paper for CSCW 2002 workshop "Re-designing email for the 21st century" (New Orleans, Louisiana, November 16, 2002), 2002.

3   Susanne Bdker, Through the Interface: A Human Activity Approach to User Interface Design, Lawrence Erlbaum Associates, Inc., Mahwah, NJ, 1991

4   Cypher, A. The structure of users' activities. In: D. Norman, S. Draper. (eds.) User Centered System Design, New Perspectives on Human-Computer Interaction. Lawrence Erlbaum Associates, 1986.

5   Allen Cypher , Daniel C. Halbert , David Kurlander , Henry Lieberman , David Maulsby , Brad A. Myers , Alan Turransky, Watch what I do: programming by demonstration, MIT Press, Cambridge, MA, 1993

6   Paul Dourish , W. Keith Edwards , Anthony LaMarca , Michael Salisbury, Presto: an experimental architecture for fluid interactive document spaces, ACM Transactions on Computer-Human Interaction (TOCHI), v.6 n.2, p.133-161, June 1999

7   Nicolas Ducheneaut , Victoria Bellotti, E-mail as habitat: an exploration of embedded personal information management, interactions, v.8 n.5, p.30-38, Sept./Oct. 2001

8   Thomas Erickson, The design and long-term use of a personal electronic notebook: a reflective analysis, Proceedings of the SIGCHI conference on Human factors in computing systems: common ground, p.11-18, April 13-18, 1996, Vancouver, British Columbia, Canada

9   Scott Fertig , Eric Freeman , David Gelernter, Lifestreams: an alternative to the desktop metaphor, Conference companion on Human factors in computing systems: common ground, p.410-411, April 13-18, 1996, Vancouver, British Columbia, Canada

10   Scott Fertig , Eric Freeman , David Gelernter, "Finding and reminding" reconsidered, ACM SIGCHI Bulletin, v.28 n.1, p.66-69, Jan. 1996

11   D. Austin Henderson, Jr. , Stuart Card, Rooms: the use of multiple virtual workspaces to reduce space contention in a window-based graphical user interface, ACM Transactions on Graphics (TOG), v.5 n.3, p.211-243, July 1986

12   Will Hill , Laren Terveen, New uses and abuses of interaction hhistory: help form the research agenda, Conference companion on Human factors in computing systems, p.472, April 24-28, 1994, Boston, Massachusetts, United States

13   Victor Kaptelinin, Creating computer-based work environments: an empirical study of Macintosh users, Proceedings of the 1996 ACM SIGCPR/SIGMIS conference on Computer personnel research, p.360-366, April 11-13, 1996, Denver, Colorado, United States

14   Victor Kaptelinin, Computer-mediated activity: functional organs in social and developmental contexts, Context and consciousness: activity theory and human-computer interaction, Massachusetts Institute of Technology, Cambridge, MA, 1995

15   Kaptelinin, V. Supporting Higher-Level User Actions with Representations of Project Contexts and Interaction Histories. Working Paper. Department of Informatics, Umeå University, 1997.

16   Kaptelinin, V. UMEA: User-Monitoring Environment for Activities. UIST '02 Companion. Posters and Demos from the 15th Annual ACM Symposium on User Interface Software and Technology (Paris, France, October 27--30, 2002), 2002.

17   MacIntyre, B., Mynatt, E. D., Voida, S., Hansen, K. M., Tullio, J., Corso, G. M. Support for multitasking and background awareness using interactive peripheral displays. CHI Letters, 3 (2), 2001.

18   Thomas W. Malone, How do people organize their desks?: Implications for the design of office information systems, ACM Transactions on Information Systems (TOIS), v.1 n.1, p.99-112, Jan. 1983

19   Bonnie A. Nardi, Context and consciousness: activity theory and human-computer interaction, Massachusetts Institute of Technology, Cambridge, MA, 1995

20   Nardi, B., Anderson, K. and Erickson, T. Filing and finding computer files. Technical Report #
118. Cupertino: Apple Computer, Inc., 1994.

21   Bonnie A. Nardi , Steve Whittaker , Ellen Isaacs , Mike Creech , Jeff Johnson , John Hainsworth,
Integrating communication and information through ContactMap, Communications of the ACM, v.45
n.4, p.89-95, April 2002

22   Thomas Pederson, Magic Touch: A Simple Object Location Tracking System Enabling the
Development of Physical-Virtual Artefacts in Office Environments, Personal and Ubiquitous
Computing, v.5 n.1, p.54-57, February 2001

23   Charles Rich , Candace L. Sidner, Segmented interaction history in a collaborative interface
agent, Proceedings of the 2nd international conference on Intelligent user interfaces, p.23-30,
January 06-09, 1997, Orlando, Florida, United States

24   George Robertson , Maarten van Dantzich , Daniel Robbins , Mary Czerwinski , Ken Hinckley ,
Kirsten Risden , David Thiel , Vadim Gorokhovsky, The Task Gallery: a 3D window manager,
Proceedings of the SIGCHI conference on Human factors in computing systems, p.494-501, April 01-
06, 2000, The Hague, The Netherlands

25   Shapiro, D. Technologies for self-organization. In: Dittrich, Y., Floyd, C., Jayaratna, N., Kensing,
F., and Klischewski, R. (eds.) Social Thinking - Software Practice. Dagstuhl Seminar Report
(Dagstuhl, Germany, September 1999), 1999.

26   Mike Sharples, The design of personal mobile technologies for lifelong learning, Computers &
Education, v.34 n.3-4, p.177-193, April-May 2000

27   Shneiderman, B. (1999) The Future of History. Available at:
http://www.cs.umd.edu/hcil/about/events /history-workshop/slides/Shneiderman/ index.htm/

28   Smith, D., Irby, C., Kimball, R., Verplank, W., Harslem., E. Designing the Star user interface.
Byte, 7 (4), April 1982.

29   Stephen Voida , Elizabeth D. Mynatt , Blair MacIntyre , Gregory M. Corso, Integrating Virtual and
Physical Context to Support Knowledge Workers; IEEE Pervasive Computing, v.1 n.3, p.73-79, July
2002

30   Roy Want , Andy Hopper , Veronica Falcão , Jonathan Gibbons, The active badge location
system, ACM Transactions on Information Systems (TOIS), v.10 n.1, p.91-102, Jan. 1992

31   Alan Wexelblat , Pattie Maes, Footprints: history-rich tools for information foraging, Proceedings
of the SIGCHI conference on Human factors in computing systems: the CHI is the limit, p.270-277,
May 15-20, 1999, Pittsburgh, Pennsylvania, United States

32   Mikael Wiberg, Bridging physical and virtual group meetings with a PC and multiple hand-held
devices, CHI '00 extended abstracts on Human factors in computing systems, April 01-06, 2000, The
Hague, The Netherlands

33   Window Managers for X: The Basics. Available at: http://www.plig.org/xwinman/basics.html

↑ **CITINGS *14***

Gloria Mark , Victor M. Gonzalez , Justin Harris, No task left behind?: examining the nature of
fragmented work, Proceedings of the SIGCHI conference on Human factors in computing systems,
April 02-07, 2005, Portland, Oregon, USA

Danyel Fisher , Paul Dourish, Social and temporal structures in everyday collaboration, Proceedings

of the SIGCHI conference on Human factors in computing systems, p.551-558, April 24-29, 2004, Vienna, Austria

Richard Boardman , M. Angela Sasse, "Stuff goes into the computer and doesn't come out": a cross-tool study of personal information management, Proceedings of the SIGCHI conference on Human factors in computing systems, p.583-590, April 24-29, 2004, Vienna, Austria

David R. Millen , Michael J. Muller , Werner Geyer , Eric Wilcox , Beth Brownholtz, Patterns of media use in an activity-centric collaborative environment, Proceedings of the SIGCHI conference on Human factors in computing systems, April 02-07, 2005, Portland, Oregon, USA

Werner Geyer , Jürgen Vogel , Li-Te Cheng , Michael Muller, Supporting activity-centric collaboration through peer-to-peer shared objects, Proceedings of the 2003 international ACM SIGGROUP conference on Supporting group work, November 09-12, 2003, Sanibel Island, Florida, USA

Ofer Bergman , Ruth Beyth-Marom , Rafi Nachmias, The project fragmentation problem in personal information management, Proceedings of the SIGCHI conference on Human Factors in computing systems, April 22-27, 2006, Montréal, Québec, Canada

Edward Cutrell , Daniel Robbins , Susan Dumais , Raman Sarin, Fast, flexible filtering with phlat, Proceedings of the SIGCHI conference on Human Factors in computing systems, April 22-27, 2006, Montréal, Québec, Canada

Michael J. Muller , Werner Geyer , Beth Brownholtz , Eric Wilcox , David R. Millen, One-hundred days in an activity-centric collaboration environment based on shared objects, Proceedings of the SIGCHI conference on Human factors in computing systems, p.375-382, April 24-29, 2004, Vienna, Austria

Anton N. Dragunov , Thomas G. Dietterich , Kevin Johnsrude , Matthew McLaughlin , Lida Li , Jonathan L. Herlocker, TaskTracer: a desktop environment to support multi-tasking knowledge workers, Proceedings of the 10th international conference on Intelligent user interfaces, January 10-13, 2005, San Diego, California, USA

Wolfgang Prinz , Baber Zaman, Proactive support for the organization of shared workspaces using activity patterns and content analysis, Proceedings of the 2005 international ACM SIGGROUP conference on Supporting group work, November 06-09, 2005, Sanibel Island, Florida, USA

Jakob Bardram , Jonathan Bunde-Pedersen , Mads Soegaard, Support for activity-based computing in a personal computing operating system, Proceedings of the SIGCHI conference on Human Factors in computing systems, April 22-27, 2006, Montréal, Québec, Canada

Beverly L. Harrison , Alex Cozzi , Thomas P. Moran, Roles and relationships for unified activity management, Proceedings of the 2005 international ACM SIGGROUP conference on Supporting group work, November 06-09, 2005, Sanibel Island, Florida, USA

Jürgen Vogel , JíRgen Vogel , Werner Geyer , Li-Te Cheng , Michael Muller, Consistency Control for Synchronous and Asynchronous Collaboration Based on Shared Objects and Activities, Computer Supported Cooperative Work, v.13 n.5-6, p.573-602, December 2004

Pamela Ravasio , Sissel Guttormsen Schär , Helmut Krueger, In pursuit of desktop evolution: User problems and practices with modern desktop systems, ACM Transactions on Computer-Human Interaction (TOCHI), v.11 n.2, p.156-180, June 2004

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      ⤷ **Subjects:** Theory and methods; User-centered design; Prototyping

General Terms:
Design, Experimentation, Human Factors

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